DOCUMENT RESUME

ED 323 001 PS 018 999

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TITLE Wordplay: The Effects of a Language Intervention on At-Risk Kindergartners and First Graders.
PUB DATE 90
NOTE 11p.; Paper prsented at the Conference of the North Carolina Association for Research in Education (North Carolina, 1990).
PUB TYPE Reports - Research/Technical (143) -- Speeches/Conference Papers (150)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Classroom Research; Comparative Analysis; *Elementary School Students; *Enrichment Activities; *Expressive Language; *High Risk Students; *Kindergarten Children; Primary Education; Program Effectiveness; *Receptive Language
IDENTIFIERS Program Characteristics; *WORDPLAY Program

ABSTRACT

The purpose of this study was to determine whether at-risk kindergartners and first graders engaged in a regular curriculum supplemented by the WORDPLAY program would attain greater receptive and expressive language skills than similar students engaged in the regular curriculum only. WORDPLAY is a program specifically designed to provide extensive experiences and supplemental language activities for at-risk kindergarten and first-grade students. In the WORDPLAY condition, a total of 9 kindergarten and 7 first-grade students were engaged in extensive activities in a small group that met for half days over a 4-month period. The WORDPLAY program emphasized weekly field trips, guest speakers, weekly cooking experiences, feelings awareness activities, and extensive small group discussions in addition to the regular school curriculum. Program evaluation data based on the use of multiple measures and a triangulation strategy indicated positive gains in both receptive and expressive language skills for all students who used the WORDPLAY program. It is concluded that a broad base of experiences and hands-on activities can enhance language development for at-risk primary grade students. (RH)

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WORDPLAY: THE EFFECTS OF A LANGUAGE INTERVENTION ON AT-RISK KINDERGARTNERS AND FIRST GRADERS

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ED323001

PAPER PRESENTED AT THE
1990 NORTH CAROLINA ASSOCIATION FOR
RESEARCH IN EDUCATION CONFERENCE

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Running head: LANGUAGE INTERVENTION FOR AT-RISK

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WORDPLAY:
The Effects of a Language Intervention on
At-risk Kindergartners and First Graders

Abstract

WORDPLAY is a program which reflects an established philosophy in education: Children learn best when they have a varied experience base from which academic skills may be built. The program was designed to provide extensive experiences and supplemental language activities for at-risk kindergartners and first graders. The purpose of this study was to determine whether at-risk kindergartners and first graders engaged in the WORDPLAY program and the regular curriculum would gain greater receptive and expressive language skills than similar students who were engaged only in the regular curriculum. Receptive language skills referred to listening skills or ability to comprehend that which is heard. Expressive language skills referred to speaking skills or ability to verbalize thoughts. Students selected for the study represented a cross section of socio-economic backgrounds, but they commonly lacked language stimulation in their home environment. Nine kindergarten and seven first grade WORDPLAY students were engaged in extensive experiences and activities within a small group, half-day format over a four month period. The WORDPLAY program emphasized weekly field trips, guest speakers, weekly cooking experiences, feelings awareness activities, and extensive small group discussions, in addition to the regular school curriculum. The evaluation for the study employed a post treatment comparison versus treatment design in which students were randomly assigned to WORDPLAY or the regular curriculum only. The use of multiple instruments allowed the teacher/researchers to "triangulate the data" (i.e., determine if similar results were seen using different assessment procedures). The analyses indicated positive gains in all cases for students using the WORDPLAY program. It was concluded that a broad base of experiences and hands-on activities can enhance language development for at-risk primary grade students.

WORDPLAY: THE EFFECTS OF A DEVELOPMENTAL LANGUAGE INTERVENTION ON AT-RISK KINDERGARTNERS AND FIRST GRADERS

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While a myriad of explanations suggest why so many students never complete high school, one explanation among the many seems instinctively correct: Students who lack basic skills are destined to academic failure. Failure leads to frustration which often leads to departure from school prior to graduation. Decreasing the number of "at-risk" students as they enter the "dropout zone" (middle and high school) is a challenge shared by both secondary and elementary educators.

Reflective of the concerns at the elementary level is a wealth of literature which suggests language development as an appropriate target for early intervention with at-risk students. Moreover, because many standard teaching practices are not effective when used with at-risk children, providing language experiences beyond the regular (drill and practice) classroom activities is a growing recommendation for early intervention with at-risk children.

Kawakami (1986) notes that with some educational at-risk students, dyadic, book-centered interactions between parent and child often do not occur. She recommends a program which uses a non-traditional approach to language instruction for these children, such as the "story talk" approach. The story talk approach promotes verbal interactions based on awareness and enrichment of experiences already possessed by at-risk students. Johnson (1987), in developing a program to prepare kindergarten at-risk students for first grade, also targets language development as a key to later school success. This program provides instruction and activities beyond the regular classroom instruction to 541 kindergarten students in the Columbus, Ohio School System. The program stresses daily instructional activities to "strengthen and extend the regular classroom instruction without pursuing the basic reading readiness textbooks." A program evaluation, using the Comprehensive Test of Basic Skills for a pre- to posttest, showed an average raw score gain of 29% for the group. Vail (1988) suggests that with students who lack receptive language skills, often non-traditional approaches, such as listening to books on tape or listening to the news and discussing it, are quite effective practices for building skills. Similarly, the North Carolina Department of Public Instruction, in a guide for a summer school program for primary at-risk students, focuses on enriching the experiences of students to promote language development. The State recommends "providing a variety of opportunities to use language in meaningful situations and minimizing drill and practice activities."

The purpose of the present study was to determine the impact of a program (WORD-PLAY) designed to develop receptive and expressive language skills of a group of at-risk primary students. Receptive language skills referred to listening skills or ability to comprehend that which is heard. Expressive language skills referred to speaking skills or ability to verbalize thoughts. The following hypotheses were tested for the program:

1. Students receiving the WORDPLAY program would manifest higher gains in receptive language skills than a comparison group who received only the regular classroom language instruction.
2. Students receiving the WORDPLAY program would manifest higher gains in expressive language skills than a comparison group who received only the regular classroom instruction.

Method

Research Design

The researchers were interested in the differences in the gains made by the students engaged in the WORDPLAY program and those not in the program. A two-group posttest design was used to test the hypotheses. Two groups (one composed of kindergartners and one of first graders) were randomly assigned to a treatment group (WORDPLAY) or comparison group (regular curriculum only). To test the first hypothesis (receptive language) a pre-measure (Test for Auditory Comprehension of Language-Revised Edition-- TACL-R) was first taken to determine initial differences in language skills between the treatment and comparison groups. A post-treatment measure (TACL-R) then was taken to determine differences in gains for the treatment and comparison group in receptive language development. To test the second hypothesis (expressive language) the percentages of students in both groups who showed gains from pre- to posttest were compared. Additionally, teacher observational records provided qualitative examples of language differences between pre- to post-treatment. Post-tests were administered four and one half months after the pre-testing.

Subjects

Sixteen kindergartners and fifteen first graders with delayed language development at one school were included in this study. Classroom teachers recommended children who appeared to have the ability to learn, but lacked life experiences to develop adequate language skills. Students selected at each grade level were similar in age. Also, racial and gender balance were considerations for subject selection. Students were not targeted for the program if behavior disorders or learning disabilities were suspected as primary contributing factors to below standard performances.

Originally, ten kindergartners and nine first graders were selected for the treatment group. However, it was determined that one kindergartner was inappropriately placed and two first graders moved. The final kindergarten group had nine in the treatment group and seven in the comparison group. The final first grade group had seven in the treatment group and eight in the comparison group.

Instruments

Three instruments were used to assess differences between the comparison and treatment groups. The Test for Auditory Comprehension of Language-Revised (DLM Teaching Resources, 1985) was administered to each student individually by the speech/language clinician to determine their receptive language proficiency. The students were shown a series of three black-and-white drawings and told to point to the pictures that corresponded with certain stimulus words. No oral response was required.

A locally developed language assessment sample was administered by the intervention coordinator to assess expressive language proficiency. All students were shown related sequential pictures and were asked to respond to questions about the pictures. The questions were nondescript, such as, "Tell me about this picture." Responses were tape recorded and transcribed.

Observational records were also locally developed and used by WORDPLAY students' regular classroom teachers. These records allowed teachers to describe student growth in their expressive language skills since beginning WORDPLAY.

Procedures

The WORDPLAY program was implemented during the 1989-90 school year at one school. A comparison group received the regular school curriculum which mainly provided in-class activities, with very few opportunities for one to one teacher and student interaction. A treatment group received the WORDPLAY program in addition to the regular curriculum. Students in WORDPLAY program were engaged in extensive experiences and activities within a small group format (two half-day classes, maximum ten students per class). This setting allowed students to expand their language base, as well as practice the use of language. Extensive time was spent by students simply talking and listening. Weekly field trips were taken to places such as an ice skating rink, a fire station, and a bakery. In addition, student preparation preceding the trips and various follow-up activities, such as making books about the trips, were enriching experiences. The "house-keeping" center in the classroom was used for review of field trips, such as setting up a mock McDonald's restaurant, post office, and television station.

Cooking experiences provided varied and new experiences to develop language and a sense of sequence. Guest speakers, including a fire safety specialist and a dentist gave presentations to the WORDPLAY class. As an extension of the dental health talk, the children brushed their teeth in class daily.

Learning centers stressed language through work on spatial concepts, sequencing, association, sentence structure and grammar, listening skills, opposites, and describing. Centers also focused on the development of fine motor, gross motor, visual, and auditory skills which in turn enhanced language development (Werner, 1979). Computer lessons incorporated problem solving skills. Group activities focused on identifying and expressing feelings, emphasizing listening, remembering, and restating peers' and the teacher's responses. First graders kept daily records in personal journals of their feelings and memories of field trips.

Results

Results for the first hypothesis "Students receiving the WORDPLAY Program would manifest higher gains in receptive language skills than a comparison group who received the only regular classroom language instruction" were obtained by the application of the Mann-Whitney U test to the scores of the TACL-R. This test of differences was applied first to the pre-treatment mean group ranks. Table 1 shows that there were no significant differences initially between the treatment and comparison groups for kindergarten, first grade or combined grade levels.

Table 1

Comparison of Initial Receptive Language Differences
Between Treatment and Comparison Groups*

Grade Level	Treatment	Comparison	Level of Sig.
K			
Mean Rank	8.83	8.07	
No. of Students	9	7	
			.757
1			
Mean Rank	7.64	8.31	
No. of Students	7	8	
			.778
K+1			
Mean Rank	15.31	16.73	
No. of Students	16	15	
			.682

* Comparisons based on differences in group mean ranks on TACL-R.

The TACL-R posttest scores (three subtests and the total test) were analyzed using the Mann-Whitney U test. Significant gains favored the treatment group on subtest II (grammatical morphemes) and total gain with a level of significance of .029 on total gain. The latter results are presented in Table 2.

Table 2

Receptive Language Differences Between Treatment and Comparison Groups*

Grade Level	Treatment	Comparison	Level of Sig.
K			
Mean Rank Gain	9.94	6.64	
No. of Students	9	7	
			.167
1			
Mean Rank Gain	9.00	6.00	
No. of Students	7	8	
			.179
K+1			
Mean Rank Gain	19.44	12.33	
No. of Students	16	15	
			.029

* Comparisons based on pre- to posttest group mean rank gains on TACL-R.

A comparison of raw score increases from pre- to posttest also favored the treatment groups' receptive language gains. The kindergarten treatment group TACL-R raw score increases ranged from 6 to 50 points, with an average increase of 26.89 points. The kindergarten comparison group TACL-R score increases ranged from 9 to 39 points, averaging 18.29 points gain. TACL-R raw score increases for the first grade treatment group ranged for 8 to 31 points, with an average increase of 17.14 points. TACL-R raw score increases for the first grade comparison group ranged from 3 to 17 points, averaging an increase of 11.00 points per student.

Results for the second hypothesis "Students receiving the WORDPLAY Program would manifest higher gains in expressive language skills than a comparison group who received only the regular classroom instruction" were determined by a comparison of pre- to post-treatment gains on a language sample prompt. This comparison showed that the percentage of students who gained from pre- to posttest were higher for the WORDPLAY than comparison group. This finding is presented in Table 3. Qualitative examples of expressive language growth for students are described in Table 4.

Further indications of the impact of WORDPLAY on expressive language skills were gleaned from the observational records of teachers. Overall, the entire staff working with the students from the WORDPLAY class reported positive gains for the children. Both the classroom teachers and the intervention coordinator reported evidence of greater confidence and higher self-esteem in these children after their involvement in WORDPLAY.

Table 3

Expressive Language Differences Between the Treatment and Comparison Groups*

	Treatment	Comparison
More details used	75%	33%
Increased vocabulary	43%	7%
Less prompting by teacher	100%	50%
Longer sentences	63%	20%
Improved grammar	25%	0%
Stayed on topic	80%	0%

* Differences based on the % of K+1 grade students who progressed from pre- to posttest.

Table 4

Examples of Student Growth in Expressive Language Skills

1. More details---In response to the question, "Tell me about this picture."

   Pretest: "The cat's putting his face in a bowl-cup."
   Posttest: "The cats are eating. The lady's putting her hands over cheeks. The cat's eating the hotdogs. One's playing with the yarn. And one's sleeping. And one's eating the pillow right there. And one is drinking out of the cup."

2. Increased vocabulary

   Pretest: "...gettin' into..."
   Posttest: "...destroyed..."

3. Less prompting---incidences of student non-answer where teacher must ask for information through repetition of initial question.

4. Longer sentences

   Pretest: "gonna get dead."
   Posttest: "He's going to run into the traffic."

5. Improved grammar

   Pretest: "...the dog barkin' and chasin' at the cat."
   Posttest: "The puppy is chasing the cat."

6. Staying on topic---In response to the question, "How do you make a peanut butter and jelly sandwich?"

   Pretest: "I don't like peanut butter and jelly sandwich. My brother eat all jelly sandwich. My grandma too. Her name Mary."
   Posttest: "You get a knife and spread peanut butter on the bread and get another bread and put it together."

The observations generally were that the WORDPLAY students became more fluent and expressive in oral language. For example, one teacher wrote, " Dwight is responding more readily and sensibly." Another: "Lakeysha has shown the most growth in her ability to answer in complete sentences. She also is using more descriptive and specific vocabulary." The pro-gram was described as especially effective for the quiet, withdrawn children who are often the ones that "fall between the cracks" when they are in regular sized classes.

The intervention coordinator's observational records noted that in addition to the enhancement of the academic skills, appropriate social skills, such as saying thank you or excuse me, and table manners (such as using eating utensils correctly and using utensils rather than fingers) were developed. The coordinator served as a role model while eating lunch with the kindergarten WORDPLAY class. Although table manners were discussed during cooking exercises, improvements in this area were an unplanned, but positive aspect of WORDPLAY.

Discussion

A meaningful improvement in language ability was reported in the treatment group compared to the comparison group: The environment of young language delayed children can be altered to improve both their receptive and expressive language ability. Considering the gains made by students in this study, the researchers believe that a replication of WORDPLAY with a larger and similar sample could produce significant gains for the participants. Moreover, since language proficiency is instrumental to success in other areas of the curriculum, such as reading, the researchers also believe that total academic performance could be increased by WORDPLAY.

Evaluation findings from the WORDPLAY Program suggest several improvements which are applicable to the regular classroom. For instance, since small groups were a key approach used for WORDPLAY, smaller regular classrooms for students with delayed language may be more effective for diversifying language experiences. In addition, taking students in the regular classroom on frequent field trips and providing more concrete and "real world" experiences commensurate with their developmental levels may be beneficial for language development. Thus, if every classroom teacher could provide diverse and individualized experiences for children like those provided by WORDPLAY, delays in language development would be greatly minimized and fewer children would enter their later school years with deficits that often lead to dropping out of school.

References

Carrow-Woolfolk, Elizabeth (1985). Test for auditory comprehension of language (revised edition). Allen, Texas: DLM Teaching Resources.

Johnson, Jessie (1987). Language development component all day kindergarten. Columbus, Ohio: Columbus Public Schools, Department of Evaluation Services. (ERIC Document Reproduction Service No. ED 288179).

Kawakami, Alice J. (1986). Encouraging reading and language development in cultural minority children. Topics in Language Disorders, 6 (2), 71-80.

North Carolina State Department of Public Instruction (1987). Communication skills: summer experience grade 3. Raleigh, North Carolina: Division of Communication Skills.

Vail, Pricilla L. (1988, September). Smart kids with school problems: roots and wings. Principal, 68, 37-39.

Werner, Lucille, Judy, Judy and Larsen, Claudia (1980). Early Prevention of School Failure Training Handbook. Peotone, Illinois: Author